

## Department of the Army, DoD

## § 627.45

HHS Publication Biosafety in Microbiological and Biomedical Laboratories (HHS No. (NIH) 88-8395), while the large-scale biosafety levels were adapted from those described in the NIH Guidelines for Research Involving Recombinant DNA Molecules.

### § 627.43 Biosafety level 1.

(a) *Laboratories.* Each laboratory used for this level will, as a minimum, have the following features:

- (1) A sink for handwashing.
  - (2) Work surfaces that are impervious to water and resistant to acids, alkalis, organic solvents, and moderate heat.
  - (3) Fly screens on any windows that can be opened.
  - (4) Furnishings and surfaces that are sturdy and designed to be easily cleaned.
  - (5) Spaces between furnishings and equipment that are accessible for cleaning.
- (b) *Animal facilities.* Each room will have the following features:
- (1) Design and construction to facilitate cleaning and housekeeping.
  - (2) A sink for handwashing within the facility.
  - (3) Fly screens on any windows that can be opened.
  - (4) Ventilation designed so that the direction of airflow in the animal facility is inward, with the exhausted air discharged to the outside without being recirculated.
  - (5) Self-closing doors that open inward.

### § 627.44 Biosafety level 2.

(a) *Laboratories.* Each laboratory used for this level of hazard will have, in addition to the requirements stated in § 627.43(a), the following:

- (1) An autoclave available.
  - (2) Containment equipment necessary for the operations unless the safety officer approves the use of a compensatory level of personal protective equipment.
  - (3) An eyewash available near the laboratory.
- (b) *Animal facilities.* In addition to the requirements stated in § 627.43(b), facilities will include—
- (1) A sink for handwashing in each room where animals are housed.

(2) An autoclave available in the building.

(3) Appropriate containment equipment unless the safety officer approves the use of a compensatory level of personal protective equipment.

### § 627.45 Biosafety level 3.

(a) *General requirements.* Each suite used as a laboratory or in which infected animals are housed will, as a minimum, have the following features:

- (1) Physical separation from areas which are open to unrestricted traffic.
- (2) All entrances to each laboratory or animal room from the nonlaboratory access corridors will be through two sets of doors. A change room or airlock may be incorporated between the doors.
- (3) The interior surfaces of walls, floors, and ceilings will be water resistant so that they may be easily cleaned.
- (4) All penetrations into the walls, floors, and ceilings should be sealed or capable of being sealed to facilitate decontamination.
- (5) A foot, elbow, or automatically operated sink will be located near the exit door to each laboratory or animal room.
- (6) An autoclave should be in each laboratory or animal room and will be available to the facility.
- (7) A ventilation system that will—
  - (i) Create directional airflow that draws air into the laboratory through the entry areas.
  - (ii) Not recirculate laboratory air.
  - (iii) Discharge the exhaust air from the laboratory to the outside and disperse the exhaust air away from occupied areas and air intakes.
  - (iv) Exhaust the HEPA-filtered air from Class I or II biological safety cabinets or other primary containment devices directly to the exterior of the laboratory or through the building exhaust system. Exhaust air from the cabinets may be recirculated within the laboratory if the cabinet is tested and certified at least every 12 months. If the filtered cabinet exhaust is discharged through the building exhaust system, it will be connected to this system in a manner (for example, thimble unit connection) that avoids any interference with the air balance of the